



Public

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3M(TM) Automix(TM) Panel Bonding Adhesive 8115

Data Sheet

3M Part No.(s) 08115	3M Part Descriptor(s) 3M™ Automix™ Panel Bonding Adhesive
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3M Fax on Demand Identification Number :

Description

3M™ Automix™ Panel Bonding Adhesive is a two-part epoxy adhesive which provides extended work-time but can be rapidly cured with heat. It is packaged in a 200 ml Duo-Pak cartridge and is to be used in conjunction with P.N. 08117 MIXPAC dispenser and P.N. 08193 Mix/Dispense Nozzle. 3M™ Automix™ Panel Bonding Adhesive has excellent adhesion to a wide variety of plastic and metal substrates.

Features, Advantages, Benefits

Features	<ul style="list-style-type: none"> • Epoxy Adhesive • Duo-Pak cartridge • Paintable • Contains glass beads
Advantages	<ul style="list-style-type: none"> • Durability • Easy to Apply • No need to remove squeeze out • Overclamp protection
Benefits	<ul style="list-style-type: none"> • High quality repair • Saves Time • Bonds and seals in one step • Consistent bondline thickness

Typical Physical Properties

Container	Base	Accelerator
Base	Epoxy	Amine
Density lbs/Gallon (Appx.)	8.0	10.0
Color	Black	Butterscotch
Flash Point - °F		
Viscosity (CPS) Brookfield Viscometer		
RVF #4 @ 20 RPM		
Solids Content (Appx.)	100%	100%
Consistency	Viscous Liquid	Viscous Liquid
Service Temperature - °F		
Solvent		

Mix Ratio by Weight	172 Parts	100 Parts
Mix Ratio by Volume	200 Parts	100 Parts

Product Uses

When the manufacturer's directions are followed, this product can be used to bond door skins, roof skins, quarter panels and box sides. In addition, product can be used for bumper cover repair under certain conditions. Typical substrates include cold roll steel, aluminum, SMC, and FRP. This product is not intended to bond structural components of a vehicle such pillars, rockers, or frame members. If doubt exists as to whether a particular component is structural, then that component should be welded.

Performance Properties
Overlap Shear Adhesion

Adhesion to Various Substrates

Typical overlap shear strength of bonds with 10 to 12 mil bondlines are reported below as pounds per square inch (psi). All materials except aluminum, E-Coat, and two-part epoxy primed steel, were abraded with a 50 grit coated abrasive and solvent wiped with 3M™ General Purpose Adhesive Cleaner, P.N. 08984. Aluminum samples were abraded with a Scotch-Brite™ Rivet Cleaning Disc, P.N. 07410 and solvent wiped. E-Coat samples were solvent wiped. No extra surface preparation was performed on the epoxy primed steel. The bonds were allowed to cure for 7 days at 73°F and then tested on a Sintech tester at a joint separation rate of 0.5 inches/minute.

*all adhesion values in psi

<u>Substrate</u>	<u>-40°F</u>	<u>73°F</u>	<u>180°F</u>
0.057" Steel/0.057" Steel	4003(C)	3935(C)*	
0.036" Steel/0.036" Steel	3309(C)	2904(C)	1259(A)
0.035" E-Coat Primed Steel/0.035" E-Coat Primed Steel		3514(S)	
0.036" Galvanized Steel/0.036" Galvanized Steel		3008(C)	
Two-Part Epoxy Primed 0.036" Steel/Two-Part Epoxy Primed 0.036" Steel		2183	
0.062" Aluminum 6111/0.062" Aluminum 6111		3144(C)	
0.063" Aluminum 5754/0.063" Aluminum 5754		2152(A)	
0.057" Steel/0.062" Aluminum 6111		3795(C)	
FRP/FRP		1283(S)	
SMC/SMC		785(S)	
ABS (Acrylonitrile butadiene styrene)/ABS		942(S)	
Acrylic (Plexiglas)/Acrylic		345(A)	
Polycarbonate (Lexan)/Polycarbonate		733(S)	
PVC/PVC		578(A)	
HIPS (High Impact Polystyrene)/HIPS		122(A)	
Polystyrene/Polystyrene		116(A)	
Polypropylene/Polypropylene		435(A)	
High Density Polyethylene/HDPE		311(A)	
Low Density Polyethylene/LDPE		176(A)	
SBR/SBR		104(S)	

- *(S)=Substrate Failure
- (A)=Adhesive Failure
- (C)=Cohesive Failure

Adhesion to Steel at Varying Bondline Thickness

*all adhesion values in psi

<u>Bondline Thickness</u>	<u>0.036" thick steel</u>	<u>0.057" thick steel</u>
10 mils	2690	3935

20 mils	2638	3863
32 mils	2653	3693
41 mils	2601	3510
47 mils	2432	3268

Rate of Strength Buildup at Various Temperatures (0.057" Steel)

*all adhesion values in psi

<u>Cure Time</u>	<u>Cure Temperature</u>				
	<u>50°F</u>	<u>73°F</u>	<u>100°F</u>	<u>150°F</u>	<u>200°F</u>
10 min				262	3061
20 min			22	1562	3707
40 min			32	3316	3786
1 hr			172	3569	
2 hr			1382	3833	
4 hr		78	2836		
5 hr		569			
6 hr		865			
8 hr	24	1756			
16 hr	592	2920			
1 day	1413	3273			
7 days	2774	3935			

Handling and Application Information

Directions for Use

Directions for use included with each cartridge of adhesive.

* If 'Directions for Use' reference P.N.'s 08984, 08986, or 08987, please read. Federal and local air quality regulations may regulate or prohibit the use of surface preparation and cleanup solvents based on VOC content. Consult your local and Federal air quality regulations for information. When using solvents, use in a well ventilated area. Extinguish all sources of ignition in the work area and observe precautionary measures for handling these materials. Refer to product label and MSDS for P.N. 8984, 8986, or 8987 for detailed precautionary information.

Applications

Storage and Handling

Store at room temperature. Rotate stock on a "first-in-first-out" basis. When stored at the recommended conditions in original, unopened containers, this product has a shelf life of 12 months.

Precautionary Information

Refer to Product Label and Material Safety Data Sheet for Health and Safety Information before using this product

Country

US

This document is public. It may be distributed.

Warranty and Limited Remedy

3M Lifetime Guarantee: 3M guarantees to the purchaser that the 3M(TM) Automix(TM) Panel Bonding Adhesive will perform to the specifications for the life of the vehicle. This Guarantee covers parts, materials, labor and loss of use of the vehicle.

LIMITATION OF LIABILITY: Except for the things covered in 3M's Lifetime Guarantee 3M and seller will not be liable for any loss or damage arising from this 3M product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability.

For Additional Health and Safety Information

3M Automotive Aftermarket Division

3M Center, Building 223-6N-01

Saint Paul, MN 55144-1000

1-877-666-2277 (1-877-MMM-CARS)

Material Safety Data Sheets and Technical Data Sheets are also available by calling Fax on Demand 1-800-305-0419.
Help Line 1-800-621-5455 (US) 1-650-596-4407 (International).

3M Fax on Demand/MSDS Identification Number

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